

GCCS/DII COE System Integration Support

DII COE Segment Software User's Manual (for cbif_IRCC Version 1.0.0.0/2.8.21 for HP-UX 10.x)

May 15, 1997

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Defense Information Infrastructure (DII)
Common Operating Environment (COE)

Segment Software User's Manual
Character-Based Interface Internet
Relay Chat Client (cbif_IRCC)
Version 1.0.0.0/2.8.21 (HP-UX 10.x)

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Preface

The following conventions are used in this document:

Bold	Used for information that is typed, pressed, or selected in executables and instructions. For example, select connect to host .
<i>Italics</i>	Used for file names, directories, scripts, commands, user IDs, document names, and Bibliography references; and any unusual computerese the first time it is used in text.
<u>Underline</u>	Used for emphasis.
Arrows <>	Used to identify keys on the keyboard. For example <Return>.
“Quotation Marks”	Used to identify informal, computer-generated queries and reports, or coined names; and to clarify a term when it appears for the first time. For example “Data-Generation Report.”
Courier Font	Used to denote anything as it appears on the screen or command lines. For example <code>tar xvf dev/rmt/3mm</code> .
Capitalization	Used to identify keys, screen icons, screen buttons, field, and menu names.

1. Software User's Manual (SUM) for cbif_IRCC

This document contains the Software User's Manual for the Character-Based Interface Internet Relay Chat Client (cbif_IRCC) segment for the Defense Information Infrastructure (DII) for HP-based machines.

1.1 Scope

1.1.1 Identification

This section contains identification information for the cbif_IRCC segment:

Segment Name:	cbif_IRCC. This software is released by the Free Software Foundation.
Version Number:	The Common Operating Environment (COE) version number is Version 1.0.0.0 (V1.0.0.0). The product version number is V2.8.21.
Platform:	HP platforms with HP-UX 10.x.

1.2 System Overview

This section contains a system overview of the cbif_IRCC segment:

Purpose:	This software provides real-time teleconferencing ability between multiple users.
Usage:	This software is used whenever a character-based teleconferencing functionality is required.

2. Referenced Documents

Segment Installation Procedures - Character-Based Interface Internet Relay Chat Client (cbif_IRCC), delivered with V1.0.0.0/2.8.21 for HP-UX.x.

3. Software Summary

3.1 Software Description

The software real-time teleconferencing using a character-based interface through a telnet session.

3.2 Software Inventory

C /bin/irc
C /bin/irc.init
C /lib/server
C /data/Menus/IRCC_Menu.

3.3 Software Environment

An HP-based platform running HP-UX 10.x with the Character-Based Interface segment installed.

3.4 Software Organization and Operation Overview

Internet Relay Chat (IRC): A real-time conversational system.

IRC—replacement for *talk(1)*:

IRC is a functional replacement for and improvement to *talk(1)*. *Talk(1)* is an old keyboard/screen conversation tool, using a machine-dependent protocol. IRC does everything *talk(1)* does, but with a better protocol, allowing more than two users to talk at once, with access across the Internet, and providing a whole spectrum of other useful features.

How much can be seen from here:

This is most formally called Internet Relay Chat. Server hosts are connected via a tree structure. The various servers relay control and message data among themselves to advertise the existence of other servers, users, and the channels, and other resources being occupied by those users.

Structure:

There is quite a lot of structure to the operation of IRC, as compared to *talk(1)*. Since so little could be done with *talk(1)*, it needed little structure. But for IRC to keep track of people spread around the world, more structure is needed to allow you can speak to exactly those people with whom you wish to speak.

Nicknames:

All users of IRC are known to the system by a “nickname”. By default, a nickname is a login name. Nickname clashes are not allowed; this is enforced by the servers. If your intended nickname clashes with someone else’s as you enter chat, you will not be able to complete entry to IRC until you change your nickname.

Presence on a channel:

Fundamental to the operation of IRC is the concept of a channel. All users are on a “channel” while inside IRC. You enter the “null channel” first. You cannot send any messages while not in any chatting channel unless you have set up a private conversation in some way. The number of channels is essentially unlimited—whatever will fit in a string, started with a pound (#) sign.

Main modes of channels:

Public - This is the default mode for a channel. When you are on a “public” channel, you can be seen by all other users (if your own user mode permits this). Anyone can notice users on a public channel and join such a channel’s conversation.

Private - This means that, although anyone can see that you are using chat, no one can tell what channel you are using unless they are already on that channel with you. Since the number of potential channels is in the billions, this is quite some security—all you give away is the acknowledgment that you are using chat.

Secret - While you are on a “secret” channel, no one that is not on your channel can even see that you are there. Your name does not show up in a list of active users. The only indication of your presence is that, when entering chat, all new users are told that there are “N users on P servers”. If you check on all users and find less than N of them, you know that others are hiding on secret channels. But a secret channel user still cannot be found except by checking through all channels, a hopeless proposition in the face of the huge number of possible channel names.

Changing the mode:

The mode of a channel (private, secret, invite-only, moderated, topic-limited, person-number-limited, no-messages-to-channel, or ban someone from channel) is set by the channel operator, who is the first person to join a channel, or someone who has had channel operatorship bestowed on them by another channel operator.

Conversations not using channels:

It is possible to conduct conversations with others without using the formalized channel structure. Doing so requires that two people set themselves up for private conversation using special commands; see User Commands below.

Screen/keyboard structure:

Chat is a full-screen utility. It takes over the screen, with the bulk of activity happening in the top N-2 lines, a modeline (vaguely emacs-like) on the next to last line, and your input

being entered on the last line. A good version of client is the IRC-II client, available on anonymous ftp from various sites around the world.

Keyboard input:

When typing commands at IRC, you have a minimal line-editing facility in an emacs style. That is, `^A` moves the cursor to the beginning of the line, `^E` goes to the end, `^D` deletes the character under the cursor, `^K` kills from the cursor to the end, and so on.

Screen activity:

Almost everything happens in the upper portion of the screen. This includes both messages from other users, as well as the output of the control commands. Normal messages from other users appear with the originating nickname in angle brackets (`<>`). Private messages arrive with the originating nickname in asterisks (`*`). Messages sent to everyone appear preceded by a `>` whereas messages which are sent privately to another user appear with `-> *nickname`. Other output (e.g., `/who` commands, invitations from other users to join channels, and so forth) appears interspersed with other activity on the screen.

Command structure:

Ordinary text typed at IRC is sent as a message to everyone on the same channel, modulo personal choices for private messages and the like. Commands to IRC itself all begin with a command character, which is initially `/` but may be changed to any other character desired.

Commands may in general be abbreviated to a unique prefix.

Leaving IRC:

The way to get out of IRC is to enter the `/signoff` command. `/si` is sufficient. Also equivalent are `/exit`, `/bye`, and `/quit`. A *signoff* command may include a comment which will be seen by everyone on the current channel of the person who left.

Getting help:

Type `/help`. Follow the instructions.

User Commands

The most important commands supported by IRC are explained below.

/help: Information on how to use the rest of the system is available via `/help`. The modeline says so as well.

/signoff {comment}: */signoff* exits chat. Optional comment may be included; see above.

/who: */who* returns information on who is using chat. */who* without arguments prints information on all users that can be seen. Users of public channels are shown with their channel identified. Users of private channels appear, but they are specified as being on a private, unspecified channel. Users of secret channels and users whose user mode is +I (invisible) do not appear at all.

Giving a channel name as an argument to */who* returns only those users of the specified channel. This still does not show users of secret channels or invisible users you are actually on the same channel with them. Users of private channels are shown, if an exact channel name is given.

/whois: This returns information about individual users. Say */whois nickname* to get information on the login name and host from which the nicknamed user comes.

/topic: Channels can be given off-the-cuff *topics*. Saying */topic some string of text* will associate that *topic* with the current channel.

/list: */list* will give lists of active channels, the number of users of each, and the topics therewith associated. Again, secret channels do not appear and private channels only appear as `Prv`.

/join: */join* or */channel* are the means to enter a channel. Give the channel name as an
and argument. If this is a secret or hidden channel, */who* commands will show
/channel: yourself and any other users of your channel.

Your arrival on a channel is announced to the rest of the users on that channel. Silent, anonymous lurking is not supported.

/links: */links* lists the currently-active set of chat servers. Beware this list can be quite long, and will undoubtedly get longer as chat gains wider use. As of May 15, 1992, about 130 servers are typical.

/msg: A single message can be sent privately to a certain user with */msg*. Type **/msg nickname** and the text to be sent. It will be sent privately to the indicated nickname.

/invite: If there is a user online that you want to speak to, you may invite that user to join you on a certain channel. Type **/invite nickname** with an optional channel number. The receiving user gets a one-line message indicating the sender and the invitation. The receiving user is free to ignore the invitation, of course.

/ignore: If you want to ignore messages sent by some other user or users, it may be done with the */ignore* command. You can ignore someone by their nickname, or by their *user@host* data. Wildcards may be used.

/users: */users* will return a list of the users logged into your system. With an optional hostname identifying a chat server host, the users logged into that system will be listed.

/stats: This command returns counts of various protocol operations of your chat server. It is neither particularly useful nor interesting to users other than operators.

/nick: You can change nicknames by issuing */nick new-nickname*. All users on your channel will be advised of the change.

NOTE: If you enter chat with a nickname clash (e.g., your login name is the same as someone else's, and the other user got there first), the system will not let you enter until you issue a */nick* command with a unique nickname.

/away: Sometimes, you wish to remain connected to the chat system, but you must be elsewhere for a while. You can issue an */away* command with arbitrary text as argument, which will mark yourself as being away. If someone sends a user who is away a private message (via */msg* or in a private session set up via */query*; see below), the sender will get a message back from the server indicating the away-ness and the message which was set.

/info: */info* returns information regarding the author and copyright of the chat system.

/clear: At times, you wish that your screen were not so cluttered. */clear* accomplishes this.

/query: This command is used to set up private communications “outside” the normal channel system.

When you enter ***/query nickname***, the indicated nickname is set up as the sole recipient of anything that you type thereafter. Thus, if user A executes ***/query B*** and user B executes ***/query A***, they have set up a private communication. Significantly, it remains possible for them to stay on their respective channels, which need not be the same, and listen to whatever conversation is going on around them as well, though they cannot respond to that ambient conversation without leaving the private conversation they have set up.

You leave this private mode by issuing */query* without arguments.

- /cmdch:* The “/” character may not be best for some people to use as their command character. It can be changed by typing **/cmdch** <character>.
- /mode:* This command can be used for altering the various modes of a channel (see the explanation of channel modes above). The */mode* command can only be issued by channel operators.

Operator Commands

The chat system administrators on each host have additional responsibilities and power over the configuration and operation of the servers. The commands to do so are delineated below.

- /oper:* Users who have the potential for operator privileges initially invoke those privileges by typing **/oper nickname password**, where *nickname* is the nickname under which operation is intended, and *password* is the password known to the chat system for that nickname.
- /kill:* Obnoxious users had best beware the operator who is fast on the */kill* command. To remove any given nickname completely out of the chat system, type **/kill nickname**.
- /quote:* Raw access to the underlying server protocol is possible through the use of the */quote* command. To send direct, unmodified commands to the servers, type **/quote any text at all**. This has a wide variety of uses, such as deliberately killing a local or remote chat daemon, invoking operator privileges for otherwise-operator-priv-forbidden users, and related tasks. It is, again, a very powerful operation, and not to be used lightly.

Appendix

The following text appeared as a header to the document from which this manual was extracted.

```
/*
*   IRC - Internet Relay Chat, doc/MANUAL
*   Copyright © 1990, Karl Kleinpaste
*
*   This program is free software; you can redistribute it and/or modify
*   it under the terms of the GNU General Public License as published by
*   the Free Software Foundation; either version 1, or (at your option)
*   any later version.
*
*   This program is distributed in the hope that it will be useful,
*   but WITHOUT ANY WARRANTY; without even the implied warranty of
*   MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the
*   GNU General Public License for more details.
```

*
* You should have received a copy of the GNU General Public License
* along with this program; if not, write to the Free Software
* Foundation, Inc., 675 Mass Ave., Cambridge, MA 02139, USA.
*/

Date: 04 Apr 1989
Author: Karl Kleinpaste
karl@cis.ohio-state.edu

Last modification: 15 May 1992
by Mauri Haikola
mjh@stekt.oulu.fi

3.5 Modes of Operation

See Section 3.4.

3.6 Security and Privacy

See Section 3.4.

3.7 Assistance and Problem Reporting

Assistance should be obtained from the site System Administrator.

4. Access to the Software

See Section 3.4.

4.1 Software Setup

Access to this software is through a telnet session to the computer running the software.

4.1.1 Familiarization

See Section 3.4.

4.1.2 Installation and Configuration

This software is not installable or configurable at the user level.

4.1.3 Access Control

All access is through account groups and profiles.

4.2 Initiating a Session

Telnet to the machine running the cbif_IRCC software. Choose **IRC Client** from the menu and hit <Return>.

4.3 Stopping or Suspending Work

See Section 3.4.

5. cbif_IRCC Processing Guide

See Section 3.4.

5.1 Capabilities

See Section 3.4.

5.2 Conventions

See Section 3.4.

5.3 Processing Procedures

See Section 3.4.

5.4 Related Processing

Not applicable.

5.5 Data Backup

Not applicable.

5.6 Error Recovery

See Section 3.4.

5.7 Messages

See Section 3.4.

6. Notes

See Section 3.4.

A. Appendices

None.